CLAIMS

1. A compound having a phosphorylcholine group, represented by the formula (I):

$$\begin{array}{c} X^{1} \\ X^{2} \\ \end{array} \longrightarrow \begin{array}{c} A - (CH_{2})_{\overline{m}} \\ O^{1} \\ O^{2} \\ O^{2} \\ \end{array} \begin{array}{c} CH_{3} \\ O^{2} \\ CH_{3} \\ \end{array} (I)$$

5

10

wherein X^1 and X^2 are both amino groups or $-COOR^1$ groups where R^1 's may be the same or different from each other and are each a hydrogen atom or a carboxyl-protective group; A is a bond selected from a single bond, -O-, -COO-, -COO-, -CONH-, -NH-, -NHCO-, $-NR^2-$ and $-CH_2O-$ where R^2 is an alkyl group having 1 to 6 carbon atoms; and m is an integer of 1 to 12.

1.5

- 2. The compound having a phosphorylcholine group according to claim 1, wherein X^1 and X^2 are both amino groups.
- 3. The compound having a phosphorylcholine group according to claim 1, wherein X^1 and X^2 are both -COOR¹ groups where R^1 's are both hydrogen atoms.
- 20
- 4. The compound having a phosphorylcholine group according to claim 1, wherein X^1 and X^2 are both $-\text{COOR}^1$ groups where R^1 's may be the same or different from each other and

are each an alkyl group having 1 to 6 carbon atoms, a substituted or unsubstituted arylmethyl group, a cyclic ether residue, an alkylsilyl group or an alkylphenylsilyl group.

5. A polymer comprising at least 1 mol% of repeating units with a phosphorylcholine group and having a number-average molecular weight of 1,000 or more, the repeating units with a phosphorylcholine group being represented by the formula (II):

$$\begin{array}{c|c}
 & CH_3 \\
 & CH_2)_{\overline{m}} & CPOCH_2CH_2N^+-CH_3 \\
 & CH_3
\end{array}$$
(II)

10

wherein A is a bond selected from a single bond, -O-, -COO-, -OOC-, -CONH-, -NH-, -NHCO-, -NR 2 - and -CH $_2$ O- where R 2 is an alkyl group having 1 to 6 carbon atoms; and m is an integer of 1 to 12.

15

6. The polymer according to claim 5, which has one or more bonds selected from an amido bond, an ester bond, a urethane bond, a urea bond and an imido bond within its main chain skeleton.

20

7. A process for producing a polymer as described in

5

10

15

claim 5, which process comprises performing polycondensation or polyaddition of a compound having a phosphorylcholine group represented by the formula (I) and another polymerizable monomer:

$$X^{1}$$
 A
 CH_{2}
 CH_{2}
 CH_{2}
 CH_{2}
 CH_{2}
 CH_{3}
 CH_{3}
 CH_{3}
 CH_{3}
 CH_{3}
 CH_{3}

wherein X^1 and X^2 are both amino groups or $-COOR^1$ groups where R^1 's may be the same or different from each other and are each a hydrogen atom or a carboxyl-protective group; A is a bond selected from a single bond, -O-, -COO-, -OOC-, -CONH-, -NH-, -NHCO-, $-NR^2-$ and $-CH_2O-$ where R^2 is an alkyl group having 1 to 6 carbon atoms; and m is an integer of 1 to 12.

8. The process according to claim 7, wherein the other polymerizable monomer is one or more monomers selected from a dicarboxylic acid, a dicarboxylic acid derivative, a tetracarboxylic dianhydride, a diisocyanate compound, a diamine compound and a diol compound.